• COLORADO RIVER •

AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Vol. II NOVEMBER 5, 1935 No. 21

ON THE RIVER

View from the portal of one of the Parker Dam Diversion tunnels.

· COLORADO RIVER ·
AQUEDUCT NEWS
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
LOS ANGELES, CALIFORNIA

Published twice monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. II November 5, 1935 No. 21

IMMEDIATE BENEFITS

How the building of the Colorado River Aqueduct is bringing immediate benefits to Southern California was drawn to public attention again last week by the Bulletin of the Los Angeles Chamber of Commerce, which reaches hundreds of business executives locally and throughout the country.

"Though taxes collected by the Metropolitan Water District during the current fiscal year amount to only $3,486,-091, aqueduct construction during the same period is placing $46,000,000 into circulation for materials and labor," the publication pointed out.

"Following are a few of the quantities of materials, supplies, and equipment (an important part of which originates in Southern California or are handled by local firms) which are being used in aqueduct construction:

"Enough cement to build a concrete highway from Los Angeles to New York—7,000,000 barrels—all of which is being purchased from Southern California plants.

"Enough gasoline—3,600,000 gallons—to drive 2,200 touring cars once around the world at the equator. Another Southern California product.

"The project requires an enormous amount of electric power for construction work. In its entirety, the job will use 240,000,000 kilowatt hours, or a monthly consumption of electrical power equivalent to the monthly consumption of 55,000 homes. All of this energy is being purchased from Southern California utilities . . . ."

These are but a few of the items mentioned by the Chamber of Commerce publication. They constitute an old story to the men and women connected with the aqueduct—but a story which will bear repeating time after time, because it illustrates how important the great water carrier is to the present as well as the future welfare of Southern California.

Here are some of the boys who punched through the last rock wall between Winston Brothers' and Utah Construction Company's sections of Iron Mountain Tunnel.

EAST AND WEST SECTIONS OF IRON MOUNTAIN TUNNEL HOLED THROUGH OCT. 30

Excavation of the seven and one-half mile Iron Mountain tunnel of the aqueduct entered its final stage on October 30 when Winston Brothers' crews, working west from Iron Mt. Shaft, holed through to the west portion of the tunnel which previously had been driven by the Utah Construction Company.

The holing through makes a solid tunnel section 29,915 feet long. Utah's section, on which excavation was completed August 12, is 16,172 feet. The Winston section, west from the shaft, is 13,743 feet long.

The closure between the Utah and Winston sections was made with an error of only .2 feet in line and .01 feet in grade.

E. A. Bernard is general superintendent on the Winston job, with F. T. Hillman as superintendent. Utah's general superintendent is Ben Arp.

The Winston crew which holed through was made up of Jeff Maughmer, W. J. Rohan, Robert Dean, Gus Carlson, Ted Deal, Joe Anderson, Bert Dawes, William Flaten, Riley Ferrell, George Knox, William Underkofler, J. P. Bartheleme, Armee Workman, Morris Grady, J. J. Davison, W. R. Simons, F. D. Ross, Giorgio Damico, G. G. Miller, J. P. Steiner, I. T. Moore, C. E. Wales, Ed Weigand, A. E. Sherman, Nelson Paul, H. A. Burks, L. O. Wesselman, F. F. Ramsey, H. K. Winters, C. H. Berger, and G. E. Jackson.

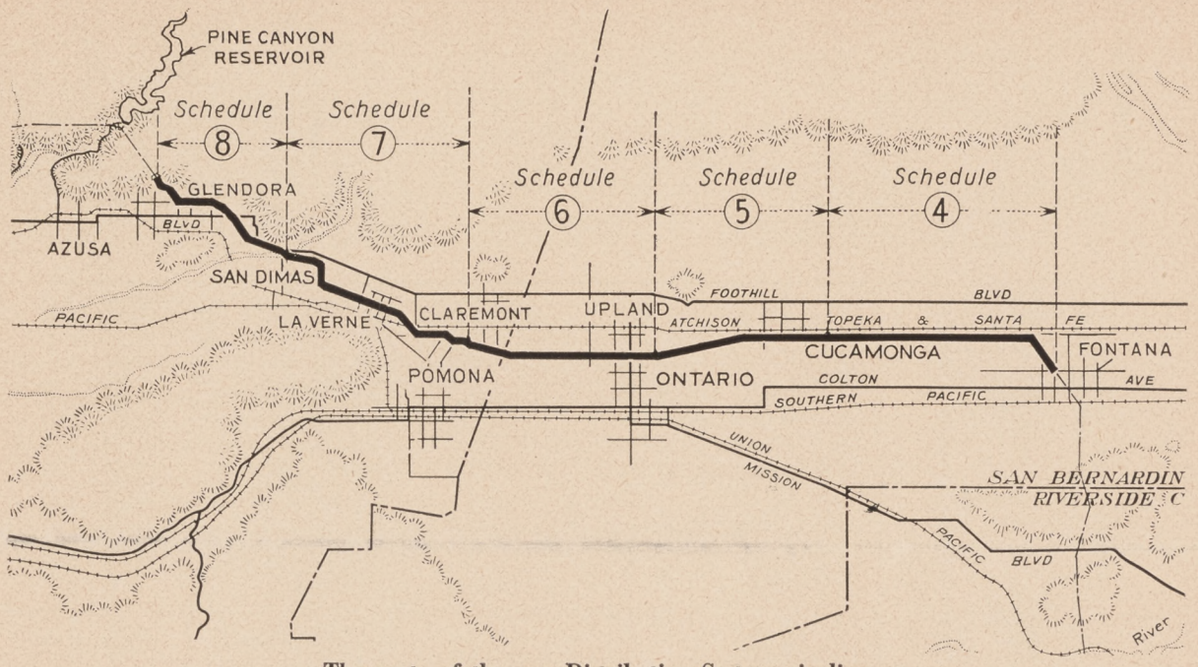
Members of the Metropolitan Water District engineering staff assigned to the job were W. J. Neal, D. C. May, N. H. Buckner, Louis E. Watson, and J. L. LaFond.

New Record at 1000 Palms No. 1

Establishing a new record for tunnel excavation on the Coachella Division, District force account crews on Thousand Palms Tunnel No. 1, under Superintendent John Austin, excavated 253 feet during the week ending Nov. 2.

Two hundred and forty-seven feet of the record-making distance required timber lagged steel support. An average advance of 14.1 feet per shift was made.

The new mark surpasses the 241 feet which was a record for the Division when driven in Seven Palms tunnel during the week ending September 1, 1934.



The route of the new Distribution System pipeline.

CONTRACTS AWARDED FOR CONSTRUCTION OF 14 MILES OF DISTRIBUTION SYSTEM PIPELINE

Construction of the first of the Distribution System pipeline was in view this week following the awarding of contracts by the District Board of Directors for the building of fourteen and one-quarter miles on the line.

The contracts, totaling $3,096,419, were awarded to the American Concrete and Steel Pipe Company and the United Concrete Pipe Corporation. The former firm will build Schedules 4 and 5—9.61 miles—and the latter will build Schedule 8, which is 4.64 miles long.

Bid Prices

The bid price of Schedules 4 and 5, on which the award was made, was $1,968,634, and it is estimated that the total cost to the District, including materials and other items, will be approximately $2,836,477. The bid price on Schedule 8 was $1,127,786; the total estimated cost is $1,695,871.

All of the contracts awarded were for the precast concrete type of construction. On Schedules 4 and 5 the pipe diameter will be twelve feet eight inches. On Schedule 8 the diameter will be ten feet three inches.

All bids on approximately 11 additional miles of the pipeline were rejected by the District Board. Advertisements calling for new bids will be issued.

Schedules 4 and 5 lie approximately between Fontana and Upland. Schedule 8 is between San Dimas and Glendora. Schedules 6 and 7, which are being readvertised, are between Upland and San Dimas.

A more detailed description of the course of the new line (including both the sections which have been awarded and those being readvertised) is as follows:

Route Described

The most easterly point is near the intersection of San Bernardino Avenue and Live Oak Avenue, about three and one-half miles southwest of the town of Fontana, in San Bernardino County. This is on the high line of the aqueduct distribution system northerly from the Cajalco Reservoir site, and is about a mile from where the line turns to the west. In the first two miles the line passes through the western portion of the Fontana small farms area which it leaves at Mulberry Avenue, and continues westerly, south of Cucamonga and Etiwanda, for a distance of six miles, practically paralleling the main line of the Santa Fe railway.

From a point near Vineyard Avenue, the line takes a southwesterly course for a distance of two miles to a point on Fifth Street near the easterly boundary of the city of Ontario. Continuing westerly, the line is in Fifth Street for two miles through Ontario and in Margarita Avenue for one mile in the unincorporated area west of Ontario.

Through Pomona

Leaving Margarita Avenue at Ramona Avenue, near the Los Angeles and San Bernardino County boundary, the line extends northwesterly for about a mile to Cucamonga Avenue, Pomona. After following Cucamonga Avenue westerly for a mile, the line takes a northwesterly course for another mile in Pomona and LaVerne to Seventh Street, LaVerne. Then it continues westerly for two miles on Seventh Street to Ramona Avenue where it turns north, following along the Puddingstone storm drain channel to a point within a few hundred feet of Foothill Boulevard, which is paralleled for about two miles. Then it swings northwesterly for approximately two miles to Sierra Madre Avenue at the northeast corner of Glendora. Sierra Madre Avenue is followed for a distance of one mile to Vermont Avenue, where the line swings northerly to the east portal of Monrovia Tunnel No. 1.

CONSTRUCTION PROGRESS

OCTOBER 1 TO 31, 1935

TUNNEL EXCAVATION (MILES)

	Completed	Remaining
Aqueduct	80.32	11.50
Distribution	4.93	10.76
Total	85.25	22.26

CANAL, CONDUIT AND SIPHON (MILES)

	Completed	Remaining
Excavation	69.67	75.62
Concrete	32.30	111.93

* TUNNEL LINING (MILES)

	Completed	Remaining
Aqueduct	19.26	72.56
Distribution	0	15.69
Total	19.26	88.25

* Arch considered to equal 0.9 of completed section.

TUNNEL PROGRESS

CONTRACTOR	TUNNEL	LENGTH IN FEET	EXCAVATION IN FEET: NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING	LINING IN FEET: ARCH OR INVERT	NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING
AQUEDUCT—CONTRACT													
WALSH CONSTRUCTION CO.	COLORADO RIVER	5,482		Completed		5,482	0	Arch			0	5,475	7
								Invert				0	5,482
	COPPER BASIN NO. 1	705		Completed		705	0	Arch	13	53.5	696	696	9
								Invert				0	705
	COPPER BASIN NO. 2	11,568		Completed		11,568	0	Arch	28	64.7	1,811	1,811	9,757
	WHIPPLE MOUNTAIN	(32,254)				(31,447)	(807)					0	(32,254)
	East from Adit	18,352	93	9.1	850	17,545	807						
	West from Adit	13,902	21	8.8	185	13,902	0						
WINSTON BROTHERS	IRON MT (E. PORTION)	(23,587)				(22,567)	(1,020)					0	(23,587)
	East from Shaft	9,844	79	6.4	505	8,824	1,020						
	West from Shaft	13,743	77	7.6	582	13,743	0						
UTAH CONSTRUCTION CO	IRON MT. (W. PORTION)	16,172		Completed		16,172	0					0	16,172
WINSTON BROTHERS	COXCOMB (From E. Portal)	17,795	81	8.2	663	15,756	2,039					0	17,795
BRODERICK & GORDON	E. EAGLE (From W. Portal)	9,442	54	8.6	465	7,392	2,050					0	9,442
	W. EAGLE (E. PORTION)	(15,845)				15,808	(37)					0	(15,845)
	East from Adit	7,871			0	7,841	30						
	West from Adit	7,974	16	1.4	23	7,967	7						
L. E. DIXON & BENT BROS.	W. EAGLE (W. PORTION)	10,649		Completed		10,649	0	Arch	64	49.2	3,148	3,382	7,267
HUNKIN & CONKEY CON. CO.	HAYFIELD NO. 1	9,733		Completed		9,733	0	Arch	1	19.0	19	9,723	10
								Invert	30	323.9	9,719	9,719	14
J. F. SHEA CO., INC.	COTTONWOOD	20,105		Completed		20,105	0	Arch			0	20,105	0
								Invert	31	266.3	8,255	8,255	11,850
HAMILTON & GLEASON	BERNASCONI	6,220		Completed		6,220	0	Arch	36	20.1	725	6,220	0
								Invert	51	30.2	1,540	1,540	4,680
DRAVO CONTRACTING CO.	VALVERDE	(38,015)				(36,709)	(1,306)						
	East Portal to Shaft 3	21,415		Completed		21,415	0	Arch	72	43.0	3,100	16,125	21,890
	West from Shaft 3		27	4.0	108	8,964		Invert			0	7,791	30,224
	East from Adit	12,067	27	4.2	113	3,103	0						
	West from Adit	4,533	87	4.6	396	3,227	1,306						
	TOTALS Ft.	217,572	562	7.3	4,090	210,313	7,259	Arch	214	44.4	9,499	63,537	154,035
	Miles	(41.21)			(0.77)	(39.83)	(1.37)	Invert	112	174.1	19,514	27,305	190,267
AQUEDUCT — FORCE ACCOUNT													
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	EAST COACHELLA	(96,605)				(94,128)	(2,477)						
	East Portal to Fargo Adit	32,130		Completed		32,130	0	Arch	68	28.5	1,940	1,940	94,665
	West from Fargo Adit	31,024	81	8.7	701	13,579	2,477						
	East from Berdoo Adit		81	7.9	642	14,968							
	Berdoo Adit to West Portal	33,451		Completed		33,451	0						
	1000 PALMS NO. 1 (From W.P.)	16,058	81	11.7	950	14,345	1,713					0	16,058
	1000 PALMS NO. 2	3,838		Completed		3,838	0	Arch			0	3,832	6
	WIDE CANYON NO. 1	14,305		Completed		14,305	0	Arch	77	52.9	4,077	10,082	4,223
	WIDE CANYON NO. 2	848		Completed		848	0	Arch			0	848	0
	SEVEN PALMS (From E. Prtl)	4,810		Completed		4,810	0	Arch			0	3,421	1,389
	(From W. Prtl)	11,920	47	8.1	380	11,920	0					0	11,920
	LONG CANYON (From E. Prtl)	15,295	81	8.7	705	12,018	3,277					0	15,295
	BLIND CANYON	6,848			0	5,580	1,268					0	6,848
	MORONGO NO. 1	5,712			0	5,364	348					0	5,712
	MORONGO NO. 2	1,820				0	1,820					0	1,820
	SAN JACINTO	(67,563)				(24,970)	(42,593)					0	(67,563)
	Cabazon Shaft to East Portal	8,553	93	4.2	388	4,265	4,288						
	West from Cabazon Shaft	[illegible]	93	5.2	479	7,093	34,549						
	East from Potrero Shaft		93	4.9	457	1,869							
	West from Potrero Shaft	15,499		2.2	209	3,613							
	From West Portal					3,756							

Directory

BOARD OF DIRECTORS

W. P. Whitsett, Chairman
Franklin W. Thomas, Vice-Chairman
S. H. Finley, Secretary
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Beverly Hills ..... Arthur Taylor
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Compton ..... Warren W. Butler
Fullerton ..... Walter Humphreys
Glendale ..... Bernard Brennan
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Los Angeles ..... I. Eisner
Los Angeles ..... Perry H. Greer
Los Angeles ..... Otto J. Emme
Los Angeles ..... D. W. Pontius
Los Angeles ..... John R. Richards
Los Angeles ..... Victor H. Rossetti
Los Angeles ..... W. P. Whitsett
Pasadena ..... Franklin Thomas
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Santa Monica ..... W. H. Carter
Torrance ..... Charles T. Rippy
Charles H. Toll, Treasurer
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Asst. Gen. Mgr. ..... J. L. Burkholder
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Asst. Gen. Coun,. Arthur A. Weber
Asst. Controller ..... J. M. Luney
General Supt ..... James Munn
Chief Elec. Engineer, J. M. Gaylord
Asst. to Gen. Mgr., Don J. Kinsey
Secretary to General Manager ..... Elisabeth von Hagen

DIVISION ENGINEERS

Division 1 ..... R. C. Booth
Division 2 ..... W. E. Whittier
Division 3 ..... John Stearns
Division 4 ..... B. C. Leadbetter
Divisions 5 & 6 ..... J. B. Bond
Distribution ..... R. B. Diemer

SUPERINTENDENTS

(Main Aqueduct Tunnels)

Colorado River, Copper Basin and Whipple Mt. Tunnels, Walsh Construction Co., W. A. Huntington and L. M. Ramey, Tunnel Supts.

Coxcomb Tunnel and Iron Mt. shaft, Winston Bros., E. A. Bernard, Gen. Supt.; F. T. Hillman and R. B. Johnson, Tunnel Supts.

Iron Mt. Tunnel, West Portal, Utah Construction Co., Ben Arp, Gen. Supt.

East Eagle Mt. Tunnel and West Eagle Mt. Tunnel, east portion, Broderick & Gordon, C. J. Kavanagh, Gen. Supt.

West Eagle Mt. Tunnel, west portion, L. E. Dixon and Bent Bros., P. C. Guinn, Gen. Supt.

Hayfield Tunnel No. 1, Hunkin & Conkey Constr. Co., G. B. Hoag, Gen. Supt.; F. Backlund, Tunnel Supt.

Cottonwood Tunnel, J. F. Shea Co., Inc., Gilbert Shea, Gen. Mgr.; Wallace Young, Master Mechanic.

Coachella Division, B. C. Leadbetter, Gen. Supt.

Fargo Adit, E. Coachella Tunnel—Dist. Force Acct., Neil O'Donnell

Berdoo Adit, E. Coachella Tunnel—Dist. Force Acct., John Jackman

Pushawalla Adit, and Berdoo Aggregate plant,

	MORONGO NO. 2	1,820				0	1,820					0	1,820	
	SAN JACINTO	(67,563)				(24,970)	(42,593)					0	(67,563)	
	Cabazon Shaft to East Portal	8,553	93	4.2	388	4,265	4,288							
	West from Cabazon Shaft	[illegible]	93	5.2	479	7,093	34,549							
	East from Potrero Shaft		93	4.9	457	1,869								
	West from Potrero Shaft	15,499	93	2.2	209	3,613	3,756							
	From West Portal			0.8	73	8,130								
	TOTALS Ft.	245,622	836	6.0	4,984	192,126	53,496	Arch	145	41.5	6,017	20,123	225,499	
	Miles	(46.52)			(0.94)	(36.39	(10.13)	Invert				0	245,622	

DISTRIBUTION—CONTRACT

WEST CONSTRUCTION CO.	MONROVIA NO. 1 (From W.P.)	7,865	89	8.2	727	4,848	3,017					0	7,865	
	MONROVIA NO. 2 (From Jct. 1)	940			0	298	642					0	940	
	MONROVIA NO. 3	(32,105)				(6,103)	(26,002)					0	(32,105)	
	East from Adit	11,340	71	10.0	711	789	10,551							
	Fish Canyon Adit	1,746			0	1,746	0							
	West from Adit		65	10.2	665	716	15,451							
	From West Portal	20,765	89	9.1	812	4,598								
DIXON, BENT BROS. & JOHNSON	MONROVIA NO. 4 (From W.P.)	8,096	4	3.5	14	14	8,082					0	8,096	
J. F. SHEA CO., INC.	SIERRA MADRE (From E. Prtl)	6,450	49	19.3	948	948	5,502					0	6,450	
DIXON, BENT BROS. & JOHNSON	PASADENA EAST	5,504	46	24.5	1,125	1,125	4,379					0	5,504	
	PASADENA (From West Portal)	12,140	13	22.0	286	12,140	0					0	12,140	
	SAN RAFAEL No. 1 (From W.P.)	4,077	66	8.1	534	534	3,543					0	4,077	
	SAN RAFAEL No. 2 (From E.P.)	5,661			0	0	5,661					0	5,661	
	TOTALS Ft.	82,838	492	11.8	5,822	26,010	56,828					0	82,838	
	Miles	(15.69)			(1.10)	(4.93)	(10.76)							

CANAL, CONDUIT AND SIPHON PROGRESS—PROGRESS PERIOD—OCTOBER 12 TO NOV. 2, 1935

SCHED. NO.	CONTRACTOR	FEATURES	Length in Feet	EXCAVATION—Feet			CONCRETE—Feet			BACKFILL—Feet		
				Period	To Date	Remain'g	Period	To Date	Remain'g	Period	To Date	Remain'g
1	AQUEDUCT CONSTR. CO.	Conduit and Siphons	22,025	945	*10,080	11,945	910	910	21,115		0	22,025
2	BARRETT & HILP AND MACCO CORP.	Conduit and Siphons	30,569	2,270	12,270	18,299		0	30,569		0	30,569
3		Canal and Siphons	40,849	0	36,824	4,025	118	118	40,731		0	12,695
4	JAHN & BRESSI CONSTR. CO.	Canal and Siphons	53,218	3,803	35,748	17,470		0	53,218		0	3,075
5		Canal and Siphons	53,588	1,300	*42,900	10,688	8,085	29,558	24,030	0	*600	3,420
6	WOOD AND BEVANDA	Siphon	15,520		0	15,520		0	15,520		0	15,520
7	BARRETT & HILP & MACCO Cor.	Canal and Conduit	27,707	750	21,050	6,657	2,836	13,409	14,298	1,155	6,000	6,350
8	WOOD AND BEVANDA	Canal and Siphons	49,579	865	*39,220	10,359	7,864	37,886	11,693	0	4,419	3,591
9	UTAH CONSTRUCTION CO.	Canal, Conduit and Siphons	47,399	5,310	23,120	24,279	3,737	11,749	35,650	0	*150	6,135
10	AQUEDUCT CONSTR. CO.	Canal and Siphons	41,505	3,905	35,380	6,125	4,715	11,951	29,554	0	480	4,410
11		Canal, Conduit and Siphons	44,507		0	44,507		0	44,507		0	10,462
12	THREE COMPANIES. INC.	Conduit and Siphons	33,446	1,511	23,880	9,566	2,287	5,896	27,550	1,696	4,851	27,695
13	AQUEDUCT CONSTR. CO.	Canal, Conduit and Siphons	33,270		0	33,270		0	33,270		0	4,075
14	THOMPSON-STARRETT CO.	Conduit and Siphon	32,366	2,969	18,119	14,247	1,325	6,116	26,250	0	4,220	28,146
15		Conduit and Siphons	35,849		0	35,849		0	35,849		0	35,849
16		Conduit and Siphons	19,359		0	19,359		0	19,359		0	19,359
17	M. W. D.—FORCE ACCT.	Conduit and Siphons	22,119	845	4,261	17,858		0	22,119		0	22,119
18	J. F. SHEA CO., INC.	Conduit and Siphons	27,564	240	240	27,324		0	27,564		0	27,564
18J	MORRISON-KNUDSEN CO.	Siphons	9,811	340	6,100	3,711	755	4,275	5,536	0	3,170	6,641
19	J. F. SHEA CO., INC.	Conduit and Siphon	37,464		0	37,464		0	37,464		0	37,464
20		Siphons	18,561	1,150	17,250	1,311	1,955	15,208	3,353	11,700	13,400	5,161
20 A & B	GRIFFITH COMPANY (Outlet Channel Unlined)	Siphons	936	0	705	231		0	936		0	936
21		Siphons	14,585	2,650	8,970	5,615	1,621	6,374	8,211	1,570	5,150	9,435
22		Siphon	7,225		0	7,225		0	7,225		0	7,225
23		Conduit and Outlet Channel	38,711	2,820	22,320	16,391	2,146	17,717	15,444	1,550	15,600	17,544
	TOTALS		757,732	31,673	358,437	399,295	38,354	161,167	591,015	17,671	58,940	367,465

COMPLETED FEATURES *Adjustable Totals

TUNNELS

CONTRACTOR	TUNNEL	Length in Miles	Work Started	Work Completed
MORRISON-KNUDSEN CO.	MECCA PASS Nos. 1, 2 & 3	1.13	7-17-33	2-10-35
WEST CONSTRUCTION CO.	WHITEWATER Nos. 1 & 2	1.94	7-18-33	4-15-35
SHOFNER & GORDON	HAYFIELD No. 2	1.03	7-8-33	7-27-35
TOTALS		4.10		

CANAL, CONDUIT AND SIPHON

CONTRACTOR	FEATURE AND NAME OR SCHEDULE	Length in Miles	Work Started	Work Completed
UNITED CONC. PIPE CO.	LITTLE MORONGO SIPHON	0.13	2-27-34	8-20-34
M.W.D.—FORCE ACCT.	FAN HILL COND. & SIPHON	0.32	10-21-33	11-19-34
GRIFFITH COMPANY	SCHEDULE NO. 20-C	1.33	5-3-35	9-14-35
	TOTALS	1.78		

Fargo Adit, E. Coachella Tunnel—
Dist. Force Acct., Neil O'Donnell
Berdoo Adit, E. Coachella Tunnel—
Dist. Force Acct., John Jackman
Pushawalla Adit, and Berdoo Aggregate plant, East Coachella Tunnel—
Dist. Force Acct., F. A. Weller
Thousand Palms—
Dist. Force Acct.,.....John Austin
Wide Canyon—
Dist. Force Acct., ...
.....Kenneth MacIsaac
Long Canyon—
Dist. Force Acct.,.....C. E. Sides
San Jacinto Tunnel, District Force Account, C. R. Rankin, Gen. Supt.; Frank Laird, Tunnel Supt.; E. E. McCabe, W. L. Taylor, and Jack Stone, Tunnel Supts.
Bernasconi Tunnel, Hamilton & Gleason Co., Harry S. Stocker, Gen. Supt.
Valverde Tunnel, Dravo Contr. Co., R. W. Remp, Gen. Supt.; H. C. Richardson, Asst. Gen. Supt.; Fred Youmans, Tunnel Supt.; John Will, Concrete Supt.

(Distribution Tunnels)

Monrovia tunnels, West Construction Co., H. E. Carleton, Gen. Supt.; O. V. Humason, Peter Brisbois, and Angus MacDonnell, Tunnel Supts.
Pasadena tunnel, San Rafael tunnels Nos. 1 and 2, and Monrovia tunnel No. 4, L. E. Dixon Co., Bent Bros., Inc., and Johnson, Inc., H. J. King, Gen. Supt.; D. L. Simpson, Supt.

(Canal, Siphon, Conduit)

Schedules Nos. 1, 1A, 1B, 10, 10A, 10B, 11, 11A, 11B, 11C, 13, 13A, and 13B, Aqueduct Construction Co., C. M. Elliott, Gen. Supt.; Charles Harlowe, Jr., Excav. Supt., and Charles Clapp, Supt.
Schedules Nos. 2, 2A, 2B, 3, 3A, 3B, 7 and 7A, Barrett & Hilp and Macco Corp.; H. W. McKinley, Supt.
Schedules Nos. 4, 4A, 5 and 5A, Jahn & Bressi Construction Co., Joseph Muscolo, Gen. Supt.; Dominick Bressi, Asst. Gen. Supt.; C. M. Ellison, Concrete Supt.
Schedules Nos. 6, 8, 8A and 8B, Clyde W. Wood and M. J. Bevanda, A. F. Weesner, Gen. Supt.; L. L. Green, Excav. Supt.; A. V. Fisher, and V. S. Price, Concrete Supts.
Schedules Nos. 9, 9A, 9B and 9C, The Utah Construction Co., Ben Arp, Gen. Supt.; E. C. Caldwell, Excav. Supt.
Schedules Nos. 12 and 12A, Three Companies, Inc., C. J. Kavanagh, Supt.
Schedules Nos. 14, 15 and 16, Thompson-Starrett Co., Inc., Rodney Smith, Resident Engineer; William Hayes, Excav. Supt.; Thomas McIlvenna, Concrete Supt.
Schedule 17, Dist. Force Acct., H. Hjalmarson, Supt. (Fan Hill) and P. J. Lynch, Supt. (Wide Siphon).
Schedule 18J, Morrison-Knudsen, J. O. Young, Gen. Supt.
Schedules Nos. 18, 19, and 20, J. F. Shea Co., Inc., H. F. Remmerbohm, Supt.
Schedules Nos. 20A, 20B, 20C, 21, 22 and 23, The Griffith Co., Harry Davis, Supt.

Will Open Pumping Plant Bids On Nov. 19

With preliminary work already under way on the Boulder Dam-Aqueduct transmission line, interest is now centered, so far as the Electrical-Mechanical Division is concerned, on the bid openings for aqueduct pumping plants and pumps.

On November 19 tenders will be received for the construction of the Intake plant on the Colorado River, about a mile above Parker dam, and the Gene plant, at Gene Wash reservoir, about two miles south of the Intake and two miles west of the river.

In addition, bids for furnishing the pumps for all five stations have been asked by the District and will be opened on December 3.

Specifications for the plants call for heavy substructures designed in reinforced concrete to receive the heavy pumps. The roofs and superstructures housing the operating equipment will be steel, framed with reinforced concrete walls and reinforced concrete roof slabs.

Exterior walls will be poured in forms faced with fibre board to provide a smooth surface, and will be left with the natural concrete texture. The roofs of the buildings are to be covered with mission tile. Modernistic lines have been followed in the architectural treatment of the buildings.

Each plant ultimately will contain nine pumping units of about 200 second feet capacity each. Three units will be installed initially, others being added as the water demand increases.

Insurance Drive Goes Over Top

That the drive for new policy-holders in the employees' group insurance plan went over the top in a manner which exceeded all expectations was announced this week by Gregory D. Smith, president of the Board of Control.

A total of 131 employees took out policies, bringing the number participating in the plan up to approximately 580, thus assuring an average of well over 500, the goal set for the drive.

The campaign was carried forward with the cooperation of the John Hancock Life Insurance Company, which waived the physicial examination ordinarily required of those employees who have been on the payroll over 90 days.

The offer was open only to employees whose classification came within the insurance coverage, and who had not reached the age of 60 years.

Results of the drive were as follows:

	Old Employees	New Employees	Total
L. A. Office.....	3	3	6
Dist. Div. & Field Engr.	2		2
Banning Office....	1		1
Operating	4		4
Div. 1 Engrs.....	2	3	5
Div. 2 Engrs.....		17	17
Div. 3 Engrs.....	2	4	6
Div. 4 Engrs.....	4	1	5
Div. 5 Engrs.....	1		1
Div. 6 Engrs.....	1	4	5
San Jac. Const...	25	1	26
Coachella Const...	40	13	53
	85	46	131

Safety On the Aqueduct

By T. W. OSGOOD
Safety Engineer

Motor vehicle deaths are increasing while all other accidental deaths are decreasing. In the National Safety Council's publications we read in part:

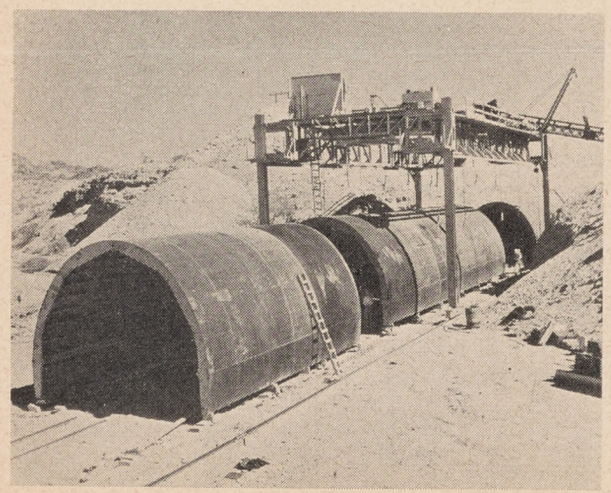
"Motor vehicle accidents in the United States caused 36,000 deaths and 1,250,000 non-fatal injuries in 1934. The cost to the nation, in wage loss and medical expense, was approximately $780,000,000. To this may be added about $800,000,000 for property damage, giving a grand total of $1,580,000,000.

"Never has the motor vehicle accident toll been so tremendous. The 1934 death toll is seven per cent above that for 1931, and exceeds the 1933 figure by fifteen per cent."

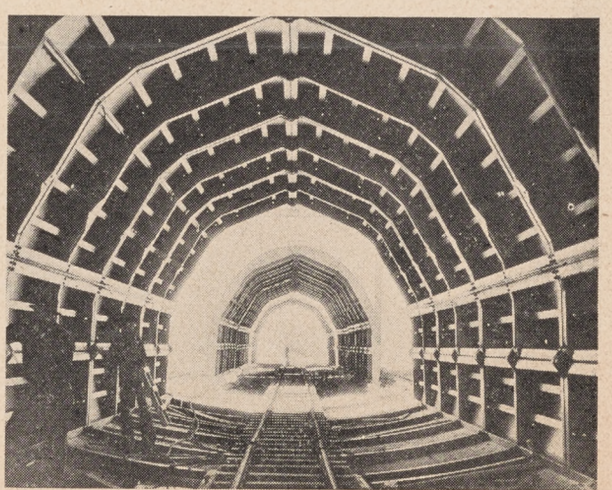
This appalling record of fatal and non-fatal personal injuries and the tremendous costs of motor vehicle accidents is a challenge to every American citizen.

The issue comes close to home. From the beginning of the Aqueduct construction in January, 1933, to November, 1935, twenty-nine aqueduct employees, while off duty, lost their lives in automobile accidents.

If this problem is to be met, we must assume our individual responsibilities and give the thought, time and action necessary to the protection of human life and property.



Concreting operations get under way on the most easterly of the aqueduct open work — conduit on Schedule One, under the Aqueduct Construction Company contract. The two pictures above show the sections of inner forms, assembled and ready for action. Each section weighs approximately 15,000 pounds.



NEWS FROM FIELD AND OFFICE

D. C. Edmondson has resigned his position in the Design Division of the Los Angeles Office to accept a post with the U. S. Engineer's Office in Los Angeles.

* * *

Roy Scrivner of the Miscellaneous Activities Division reports that interest in the new Metropolitan Aqueduct Newsreel continues keen among theater managers and audiences. It has been exhibited or is scheduled for release in more than 150 theaters.

* * *

Donald M. Keith, former Los Angeles deputy city attorney, has accepted a position in the Metropolitan Water District Legal Division under General Counsel James H. Howard.

* * *

H. S. Kleinschmidt has resigned from the Design Division in the Los Angeles Office to accept a post with the U. S. Engineer's Office.

* * *

San Bernardino County authorities have consolidated the Rice and Iron Mountain schools at Rice, and are operating a bus from the Utah Construction Company Camp, at Iron Mountain, to Rice. The school is housed in a new building, located on the highway on the east side of Rice. At present there are 48 children in the student body, and it is understood that if there is any further enrollment a second teacher will be engaged. The new school is to be a permanent institution under Superintendent John Brandigan of the Needles District. Aqueduct parents in the vicinity are reported highly pleased with the establishment and the type of new equipment which has been installed.

* * *

Division Two's Ocotilla Club, made up of the wives of Metropolitan Water District engineers and construction men, held its first meeting of the winter season at Granite Substation on October 30.

* * *

Joseph Timmons, famous writer in the Hearst newspaper service, was a visitor along the aqueduct line last week. He was accompanied by Assistant to the General Manager Don J. Kinsey and Photographer Bill Fox.

* * *

H. Hultgren, of the Design Division of the Los Angeles Office, has resigned to accept a position with the U. S. Engineer's Office.

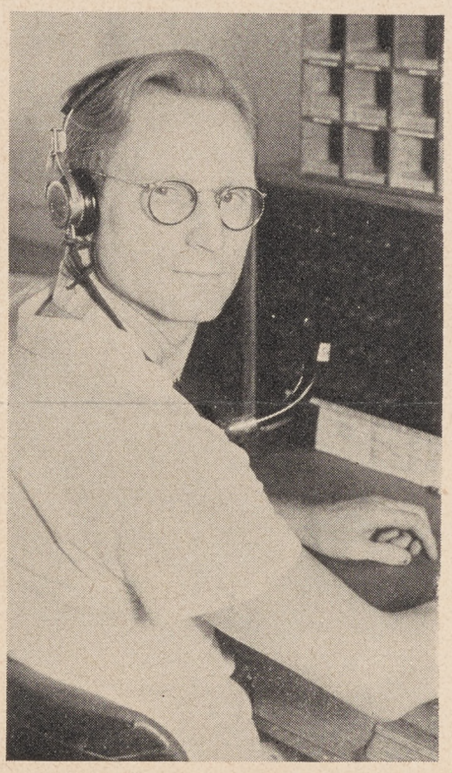
Aqueduct Temperatures
October 1 to 31, 1935

	Max.	Min.
Div. 1	101°	47°
Div. 2	97°	45°
Div. 3	106°	49°
Div. 4	95°	51°
Divs. 5 & 6	92°	39°

The job is moving! Figures compiled by Tom Helpling of the Traffic Department reveal that an average of thirty freight car loads of cement per day is being shipped to points along the aqueduct. This is 9,000 barrels a day, or, to use the unit of measurement with which the average citizen is familiar, 36,000 sacks per day!

* * *

Work on the new 16-mile Whipple Mountain Patrol road has been completed by Bennett & Taylor, fine grading, placing riprap, and miscellaneous cleanup having been finished on October 15.



You wouldn't believe it friends, but the scholarly visaged gentleman shown above is none other than the owner of that dulcet voice which frequently answers from Berdoo Camp on the Coachella Division. In short, none other than LeRoy G. (Hardrock Pinkie) Costello.

Dr. Clyde H. Landers has left Walsh Construction Co.'s Whipple Mountain camp to accept a position with the Thompson - Starrett Company. Dr. Claude Peters is now head medico at Whipple.

* * *

Manager Merrill Johnson announces the following ladder of Los Angeles Office Tennis Club members: 1. Skinner, 2. Osgood, 3. Johnson, 4. Dennis, 5. MacGonaghy, 6. Cheatham, 7. Anderson, 8. Ingram, 9. Brandt, 10. Winzell, 11. Swinford, 12. Davis, 13. Maier. The following inactives may challenge as indicated or lower: 1. Crawshaw, 4. Scrivner, 5. Smith, 8. Bladholm, 10. Clayton and Lewis, 11. Aultman and Gumensky. The Club is leasing three courts for the fourth Saturday and one court for every other Saturday of each month and welcomes all employees (including ladies) who desire to play. The cost is thirty-five cents per person per month.

* * *

The Arlington Christian Church, at Pico and Arlington, Los Angeles, will be the scene, on November 19, of the wedding of Miss Catherine Gates and Dr. E. A. R. Torsch. Miss Gates is a member of the Personnel Division staff and Dr. Torsch is a prominent member of the dental profession in Los Angeles. Miss Gates has invited all District friends to attend the ceremony. The new home will be established at 1549 West 104th Street, Los Angeles.

* * *

Operative 2465XZ reports that Frank S. Price, of the Walsh Company Whipple Mountain Camp, has been making discreet inquiries regarding distances to the various Arizona county seats—you know, the places where they issue marriage licenses.

* * *

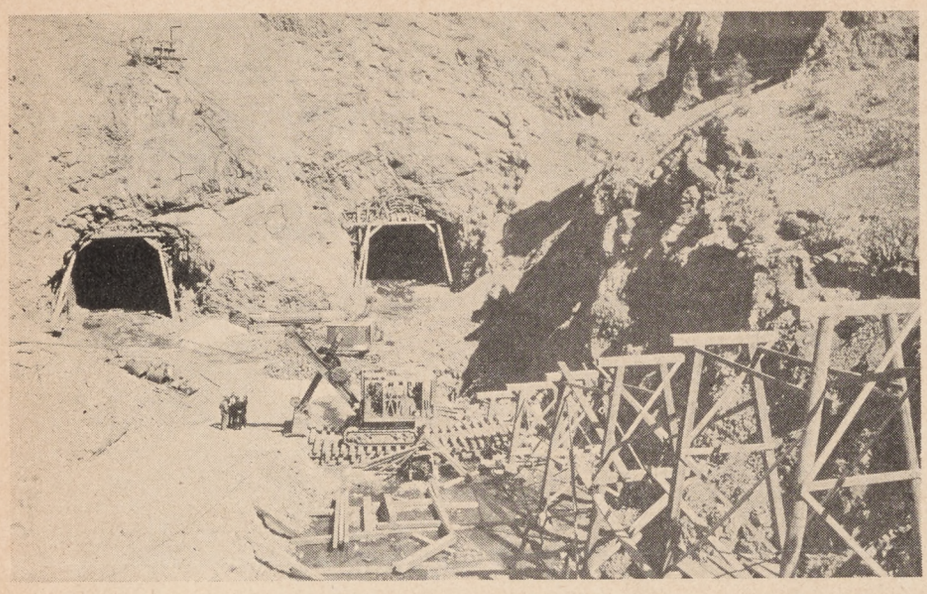
Changes in the directory this week reveal that M. Hjalmarson has been appointed superintendent on the Fan Hill conduit work and P. J. Lynch superintendent on the Wide Siphon. Both sections are in Schedule 17.

* * *

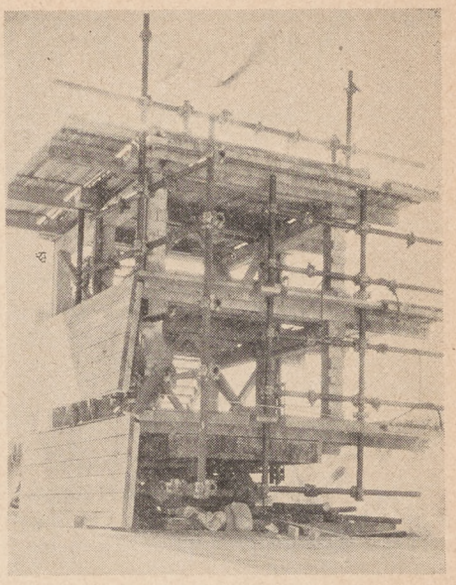
Miss Grace Jessup, formerly with the Stenographic Division of the Los Angeles office, has been transferred to the stenographic staff of the Legal Division.

* * *

Mrs. Floyd Huntington spent the last two weeks at Whipple Mountain Camp.



Here is where work has been resumed on the Parker dam unit of the Colorado River Aqueduct. The picture above shows the portals of the two 29-foot diameter diversion tunnels, first major job to be launched in connection with the dam.



The type of drill jumbo being used on the Parker Diversion tunnels—mounting 25 or more drills, and said to be the largest ever built.

WHITE RUSSIAN MEETS RED COUNTRYMEN ON AQUEDUCT

A dramatic meeting between four Russians—a former officer in the Czarist armies and three high officials in the Soviet regime — occurred last week against the background of the Metropolitan Water District's huge Colorado River Aqueduct project.

The one-time Czarist was D. B. (Ben) Gumensky, who was a lieutenant in the flying corps of the Russian army during the Great War, and now is an American citizen and a designing engineer for the Metropolitan Water District. The Soviet officials were A. Gridunov, Boris P. Popoff, and Alexander Rubenstein.

The three visitors are on a tour of the United States, visiting leading engineering projects, including Southern California's great aqueduct. Because of his knowledge of the Russian language, Gumensky, who has lived in Los Angeles for the past ten years, was assigned to act as their guide along the aqueduct.

Gridunov, who was construction engineer on the famed Dnieprostroi hydroelectric project in Russia, is now construction engineer on the Palace of Soviets, and Rubenstein is a government research engineer in soil mechanics.

Gumensky, who acted as guide and interpreter for the three visitors, fled from Russia, via China, after the collapse of the White Armies in 1919. Before the war he had been an engineering student at the Institute of Ways and Transportation in Petrograd.

And it was upon that common ground —engineering—that a White Russian-American amicably met three Red Russians. After all, sixteen years and a broad ocean make political differences seem remote—especially when there are fascinating engineering and construction topics to discuss.

When a White Russian meets Red Russians what happens? They talk about Aqueducts! Left to right—Ben Gumensky, of the Metropolitan Water District; A. Gridunov, Boris Popoff, and Alexander Rubenstein, of the U. S. S. R.

Work Underway On Parker Tunnels

Work on the diversion tunnels for Parker Dam, most easterly outpost of the Colorado River Aqueduct project, is moving forward with gathering momentum, it is revealed in engineering reports from the field.

The two big tunnels, twenty-nine feet in diameter and 1,600 feet long, will carry the Colorado River's flow around the dam site.